

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C. §§1251 *et seq.*; the "CWA"),

Loon Mountain Recreation Corporation

is authorized to discharge from the facility located at

Kancamagus Highway (State Route 112)
Lincoln, New Hampshire 03251-9711

to receiving waters named

- **East Branch Pemigewasset River: (Outfalls 001 and 003)**
- **Westwood Brook: (Outfall 002)**
- **Boyle Brook: (Outfall 004)**
- **Loon Pond: (Outfall 005)**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective thirty (30) days from date of issuance.

This permit and the authorization to discharge expires at midnight, five (5) years from the effective date.

This permit consists of 13 pages in Part I including effluent limitations and monitoring requirements, and 35 pages in Part II including General Conditions and Definitions.

Signed this day of

Linda M. Murphy, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency (EPA)
Region I

Boston, Massachusetts

EXPLANATION OF SUPERSCRIPTS TO PARTS I.A 1 through 5 that appear on pages 2 through 6:

- (1) The permittee shall report the number of discharge events per calendar month, including the approximate volume discharged, on the appropriate monthly Discharge Monitoring Report (DMR). If a discharge occurs, refer to superscript (2) immediately below for sampling requirements. If in any given month no pumping and/or no drainback discharge occurs, the appropriate DMR must still be submitted with the 'no discharge' box marked.
- (2) This sampling requirement applies only if a discharge occurs through this outfall for any given month due to the "operation" of any portion of the snowmaking system. If no discharge occurs, the appropriate no discharge code will be affixed to the appropriate box on the applicable monthly DMR. The "operation" of the snowmaking system includes, but is not limited to, its use for: (1) testing of the system's pumps or any other portion of the system's equipment; (2) training of the snowmaking crews; and/or (3) normal snowmaking activities. For receiving water TPH sampling locations see paragraph 11 below.
- (3) Total Petroleum Hydrocarbons (TPH) shall be analyzed using EPA Method 8100 with a protocol specific to Eastern Analytical, Inc. entitled "EPI SOP: 4.53, STANDARD OPERATING PROCEDURE, PETROLEUM HYDROCARBONS BY GC/FID" with a detection level of less than 0.5 milligrams per liter (mg/L). For the purposes of this permit, the "detection level" is considered the Minimum Level (ML) of detection for TPH and is defined as "the level at which the entire analytical system shall give recognizable signal and acceptable calibration points." **Also, for reporting purposes on the monthly DMR, all analytical results reported as less than 0.5 mg/L shall be considered equal to non-detect, therefore, reported as zero. A value equal to 0.5 mg/L shall be reported as 0.5 mg/L.**

The permittee had previously sampled the pump coolant oil, the same brand of which is used for the New River, Existing River, Boyle Brook and Loon Pond Pumphouses. The sample was analyzed to ascertain its chemical fingerprint, and that fingerprint is currently required to be kept on file at the facility for future reference should TPH be detected in any of the compliance samples using this specific protocol. If TPH is detected in any sample at levels equal to greater than 0.5 mg/L, the chemical fingerprint in the water sample shall be compared against the chemical fingerprint of the pump(s) coolant oil(s) to determine if the source of the TPH is from a pump(s). Results of a chemical fingerprint comparison shall be submitted to EPA in a letter report format within 60 days.

If the permittee switches analytical laboratories, it shall submit the new laboratory's Standard Operation Procedure for performing TPH Method 8100 for approval by EPA-New England and the New Hampshire Department of Environmental Services, Water Division (NHDES-WD). The permittee will be required to continue testing using Method 8100 and the above specified protocol in this permit until the permit is either formally modified or until notice is received by certified letter from EPA-New England. In addition, EPA can require through this certified letter process that the permittee perform an equivalent or more accurate TPH analysis than EPA's Method 8100 should one become referenced in 40 Code of Federal Regulations (CFR) Part 136.

- (4) The following description applies to how the samples are collected for only Outfall 005 and to how those data are translated into a reportable effluent result. For each sampling event, two water samples shall be collected. One sample, called the **"intake sample"**, shall be collected on the inlet or pond side of the pump just prior to pump shutdown, but **not** during the last 30 minutes of its operation (this sample considered to represent ambient pond concentration). The other sample, called the **"effluent sample"**, shall be collected on the same side of the pump as the first sample after sufficient mixing has occurred in the common well, at least two minutes after the start of the discharge event (this sample considered to represent drain-back concentration). Both results shall be reported in the appropriate data input blocks on the appropriate monthly DMR.

Next, the permittee shall determine the net difference of those sampling results by subtracting the **"effluent sample"** from that of the **"intake sample."** The net difference shall be reported in the appropriate data input block on the appropriate monthly DMR and shall be used to measure compliance with the permitted limit of 0.0 mg/L. Before any subtractions are performed, any results of less than 0.5 mg/L shall be converted to 0.0 mg/L.

The permittee shall determine the cause or causes of any TPH concentration either in the "intake sample" or in the "effluent sample" at Loon Pond pumphouse that exceeds the minimum level (0.5 mg/L). The permittee shall both notify EPA and begin an investigation within 24-hours from the time the permittee becomes aware of any exceedance. A written submission shall also be provided within 5 days of the time the permittee first becomes aware of the exceedance. This written submission shall contain a description of the cause of the exceedance, using the permittee's best efforts to uncover its cause, and any remedial action taken to prevent its recurrence if the permittee determines any of the permittee's equipment and/or practices caused or contributed to the exceedance.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

6. No discharge shall cause a violation of the water-quality standards of the receiving water into which the discharge flows.
7. The permittee shall not discharge into the receiving water any pollutant or combination of pollutants in toxic amounts.
8. The discharges shall be adequately treated, if necessary, to ensure that the surface water remains free from pollutants in concentrations or combinations that settle to form harmful deposits or float as foam, oil & grease, debris, scum or other visible pollutants. Any necessary treatment shall ensure that the surface waters remain free from pollutants which produce odor, color, taste or turbidity in the receiving water which is not naturally occurring and would render it unsuitable for its designated uses.
9. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 CFR §122.42):
 - a. That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 ug/L);
 - (2) Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and New Hampshire regulations.

- b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) Five hundred micrograms per liter (500 ug/L);
 - (2) One milligram per liter (1 mg/L) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and New Hampshire regulations.
 - c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.
10. This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable standard or limitation promulgated or approved under sections 301(b)(2)(C) and (d), 304(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:
- a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - b. Controls any pollutants not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

11. As indicated in Parts I.A.1., I.A.3. and I.A.4. of this permit, the permittee shall collect a sample of water once per month from East Branch Pemigewasset River and Boyle Brook when water is being withdrawn from the source water. The East Branch Pemigewasset River sample should be taken just above the confluence with Boyle Brook and the Boyle Brook sample should be taken just above the diversion dam to the Boyle Brook Holding Pond. Both samples will be analyzed for TPH by the analytical method shown in superscript 3 on pages 7 and 8. In addition, as indicated in Part I.A.5. of this permit, the permittee shall collect a sample of water once per month from Loon Pond in the immediate vicinity (within 50 feet) of the Pond's outlet and have that sample analyzed for TPH by the analytical method shown in superscript 3 on pages 7 and 8. All the test results will be reported on the appropriate monthly DMR during the previously operational period defined as beginning October 1st and ending April 30th.
12. The permittee shall not add any chemical or biological agents to the water either as it enters the snowmaking system or moves through the snowmaking system. Since compressed air is added to the water immediately after it leaves the water distribution portion of the system, that addition of air is not included in this prohibition.
13. The permittee is prohibited from the discharge of drainback water from any portion of its snowmaking system to waters of the United States except from Outfalls 001-005 permitted in PART I.A.1.- 5. on pages 2 through 7. This specifically includes, but is not limited to, all sites identified in Loon Mountain Recreation Corporation Snowmaking Drain System, July 9, 1997, submitted to EPA-New England by letter dated July 10, 1997, as part of Loon's permit application package except those drain locations mentioned in that letter that are now referred to as Outfalls 001-005 in this permit.
14. The permittee shall not discharge to Loon Pond any water from any other source than water contained within the perimeter of the Pond itself. The prohibited sources include, but are not limited to, the East Branch Pemigewasset River, Boyle Brook, and any water that has flowed over the dam at the outlet of Loon Pond. The permittee shall submit a signed statement each month along with the appropriate monthly DMR for the period beginning October 1st and ending April 30th stating that it has complied with this provision of the permit. Included in that signed statement, the permittee shall specify what device(s) and/or technique(s) were used to prevent any discharge including incidental valve leakage to Loon Pond of water other than from Loon Pond itself.

15. The permittee shall retain for the life of this permit a copy of pumping records for each pumphouse on site and make available for review upon request. These records shall show, at a minimum, the date and time the pumps were "turned on" followed by the date and time the pumps were "turned off." For each pump's on/off cycle, there shall be a legibly written or typed notation describing all outfall(s) that drainback water was/were discharged through and the approximate volume discharged at each outfall as a result of that pump's shutdown. A circumstance of no pumping and/or no drainback discharge for any given month and outfall is considered a situation that requires documentation.
16. The permittee shall utilize operation and maintenance procedures to ensure that no TPH containing substances are introduced into the drainback discharge.
17. The permittee shall retain for the life of this permit all inspection and maintenance records relative to all the pumps, pumphouses and intake structures for inspection and copying as needed by EPA-New England and/or NHDES-WD officials. This applies to any and all inspection and maintenance functions carried out during the entire calendar year (12-month period).
18. This permit shall be modified, or alternatively, revoked and reissued to incorporate more frequent TPH monitoring requirements for some or all five (5) outfalls and/or possibly to include numeric limits for Outfalls 001-004 and a prohibition against drainback discharge for Outfall 005 (Loon Pond), if: As to Outfalls 001-004, the results of the TPH requirements in this permit indicate the discharge(s) cause or have "reasonable potential" to cause an exceedance of a technology-based TPH guideline value of 5 mg/L and/or the various O&G narrative standards in the State's Surface Water Quality Regulations dated December 3, 1999, as amended; or, as to Outfall 005, if results of the TPH requirements in this permit indicate that there is any TPH being discharged at any detectable level. Results from the monthly DMRs are considered "New Information" and the permit may be modified as provided in 40 CFR §122.62(a)(2).
19. All persons collecting samples for TPH analysis shall either be from the firm performing that analysis or be trained in the proper collection procedures and preservation techniques by the firm performing those TPH analyses. The permittee is required to certify each month that all TPH samples were collected either by the firm performing the TPH analysis or by a person(s) trained in the proper collection procedures and preservation techniques by the firm performing those TPH analyses.

B. MONITORING AND REPORTING

Monitoring results shall be summarized for each calendar month and reported on separate Discharge Monitoring Report Form(s) (DMRs) postmarked no later than the 15th day of the month following the completed reporting period.

Signed and Dated original DMRs and all other reports required herein, shall be submitted to the Director at the following address:

U.S. Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114-8127

Duplicate signed copies of all reports required herein shall be submitted to the State at:

New Hampshire Department of Environmental Services
Water Division
Surface Water Quality Bureau
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

In addition, chemical fingerprint comparison reports, when required, shall be submitted to:

David Webster (Telephone: 617-918-1791)
U.S. Environmental Protection Agency
1 Congress Street, Suite 1100 (CIP)
Boston, MA 02114-2023

C. STATE PERMIT CONDITIONS

This NPDES Discharge Permit is issued by the EPA under Federal and State law. Upon final issuance by the EPA, the NHDES-WD may adopt this permit, including all terms and conditions, as a State permit pursuant to RSA 485-A:13.

If NHDES-WD adopts this permit, each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of the Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the 7-month period **beginning October 1st and lasting through April 30th**, the permittee is authorized to discharge from Outfall Serial Number 001 (drainback water from the snowmaking system) to the East Branch Pemigewasset River. **Furthermore, the permittee shall, to the maximum extent possible, discharge all water contained in the 16-inch pipe leading to/from the New River Pumphouse through this Outfall 001. Only after the discharge through Outfall 001 ceases is the permittee allowed to discharge the remaining water left in the 16-inch pipeline through Outfall 002 (a.k.a. the Westwood Brook drain).** Such discharges shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken after sufficient mixing in the common well has occurred, therefore not before 15 minutes has passed from the start of a drainback discharge event at a location that provides a representative analysis of the effluent discharged to the River.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Average</u> _____	<u>Maximum</u> <u>Daily</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>
Number of Events; Total	Report Monthly Total	-----	Number of Events ¹	Count
Flow; Gallons	-----	Report	Each Event ¹	Estimate
Total Petroleum Hydrocarbons (TPH); mg/L	-----	Report	1/Month ^{2,3}	Grab
Receiving Water TPH; mg/L	-----	Report	1/Month ²	Grab (see Part I.A.11. of the permit)

See pages 7 and 8 for explanation of superscripts.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the 7-month period **beginning October 1st and lasting through April 30th**, the permittee is authorized to discharge from Outfall Serial Number 002 (drainback water from the snowmaking system) to Westwood Brook. Such discharges shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken immediately after (not to exceed 15 minutes) a drainback discharge event has begun at a location that provides a representative analysis of the effluent discharged to the Brook.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Average</u> _____	<u>Maximum</u> <u>Daily</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>
Number of Events; Number	Report Monthly Total	-----	Number of Events ¹	Count
Flow; Gallons	-----	Report	Each Event ¹	Estimate
Total Petroleum Hydrocarbons; mg/L	-----	Report	1/Month ^{2,3}	Grab

See pages 7 and 8 for explanation of superscripts.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the 7-month period **beginning October 1st and lasting through April 30th**, the permittee is authorized to discharge from outfall serial number 003 (drainback water from the snowmaking system) to the East Branch Pemigewasset River. Such discharges shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken after sufficient mixing in the common well has occurred, therefore not before 5 minutes have passed from the start of a drainback discharge event at a location that provides a representative analysis of the effluent discharged to the River.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Average</u> _____	<u>Maximum</u> <u>Daily</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>
Number of Events; Number	Report Monthly Total	-----	Number of Events ¹	Count
Flow; Gallons	-----	Report	Each Event ¹	Estimate
Total Petroleum Hydrocarbons; mg/L	-----	Report	1/Month ^{2,3}	Grab
Receiving Water TPH; mg/L	-----	Report	1/Month ²	Grab (see Part I.A.11. of the permit)

See pages 7 and 8 for explanation of superscripts.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the 7-month period **beginning October 1st and lasting through April 30th**, the permittee is authorized to discharge from outfall serial number 004 (drainback water from the snowmaking system) to the Boyle Brook Holding Pond. Such discharges shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken immediately after (not to exceed 15 minutes) a drainback discharge event has begun at a location that provides a representative analysis of the effluent just before it discharges to the Holding Pond.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Average</u> _____	<u>Maximum</u> <u>Daily</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>
Number of Events; Number	Report Monthly Total	-----	Number of Events ¹	Count
Flow; Gallons	-----	Report	Each Event ¹	Estimate
Total Petroleum Hydrocarbons; mg/L	-----	Report	1/Month ^{2,3}	Grab
Receiving Water TPH; mg/L	-----	Report	1/Month ²	Grab (see Part I.A.11. of the permit)

See pages 7 and 8 for explanation of superscripts.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5. During the 7-month period **beginning October 1st and lasting through April 30th**, the permittee is authorized to discharge from outfall serial number 005 (drainback water from the snowmaking system) to Loon Pond. Such discharges shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken as described in superscript 4 on page 8 at a location that provides a representative analyses of the ambient conditions in Loon Pond and the effluent discharged back to the Pond.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Average</u> _____	<u>Maximum</u> <u>Daily</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>
Number of Events; Number	Report Monthly Total	-----	Number of Events ¹	Count
Flow; Gallons	-----	Report	Each Event ¹	Estimate
Total Petroleum Hydrocarbons; mg/L	-----	0.0 ⁴	1/Month ^{2,3,4}	Grab
Receiving Water TPH; mg/L	-----	Report	1/Month ²	Grab (see Part I.A.11. of the permit)

See pages 7 and 8 for explanation of superscripts.